Final Project assignment: Xinformatics (Spring 2016) (30% written, 10% presentation)
Due: Written - TUESDAY May 3, 2016 (by 5pm ET) and Presentation - TUESDAY May 3, 2016 (by ~5pm ET)
Submission method for materials: email, pfox@cs.rpi.edu, jonesj17@rpi.edu
Please use the following file naming for electronic submission:
Xinformatics2016_ProjectYOURGROUP<.i.e. red, orange, yellow, green, blue, indigo etc>.xxx, including the presentation (after you present it on May 3).
Late submission policy: this is not an assignment to hand in late.

Note: Your report for this assignment should be the result of group work. Take care to avoid plagiarism (“copying”), including all web resources, texts, and class presentations. You may discuss the problems with other groups, but do not take written notes during these discussions, and do not share your written solutions.

General assignment: option A) Analysis of existing information system content and architecture, critique, redesign and prototype redeployment. Option B) Pursuit of a detailed use case around a particular area of informatics, includes developing a prototype information system, architecture, design, etc. The weighting score for each question is included below. The detailed definition of the assignment details will be developed in class and within your team. Please use the question numbering (1-3) below for your written responses for this assignment.

1. Either A or B (depending on the option you chose above).
   a. (A) Choose an information architecture/ system to analyze/ critique (8%)
      i. Choose an advanced information application. Write min. 3-4 sentences describing the current implementation of the system, what you think the use case is, and why you chose to analyse/ critique this system.
      ii. Analyze the information architecture of the existing information system. Include in your analysis: how information content is presented, clarity of the system (intended use, etc.), what goals of a use case (from part i) were achievable, etc. Describe the existing architecture as you see it. Min. 3-4 sentences
      iii. Critique the implementation in the areas defined in lecture materials covering information uncertainty/ entropy, semiotics, cognition, design and architectures. Give details on your assessment; include screen shots and other documentation to support your critique. Min. 5-6 sentences
   b. (B) Develop or refine a use case around a particular area of informatics. This should include the required architecture, design and prototype implementation to meet the goal(s) of the use case. (8%)
      i. Document the use case. Develop the functional requirements and information uncertainty/ entropy aspects of the use case. Write min. 3-4 sentences describing what the use case is and why you
made your choice, *including a use case document* (using the template from assignment 1).

ii. Develop an information architecture including presentation of information content and describe it. Min. 3-4 sentences

iii. Develop a prototype implementation and address areas defined in lecture materials covering information uncertainty, semiotics, cognition, and architectures. Give details on your design. Min. 5-6 sentences

2. Perform a conceptual and logical model for the use case you chose (A) or are developing (B). This model should include architectural elements, relations among the “content” (things) and application of information theory and architecture principles. Include design diagrams and a (minimum) 1-page text description of the design and information model/architecture. (15%)

3. Prototype re-implementation (A) or implementation (B). Discuss all considerations you used and reference materials. Include mock-ups, architectural plans and related materials. Describe how you made implementation choices and relate them to the inferred (A) or actual (B) functional requirements of the use case. Min. 8-10 sentences and diagrams. (7%)

4. Oral presentation of the results for questions 1, 2, and 3. The presentation should be ~ 20 minutes (present for no less that 15 mins), *including* time for questions. Your grade will be assessed on demonstration of learned skills in information theory, design and architecture and their application to your use case. All members of the team should equally present in the presentation. Submit your presentation (PPT, PDF or similar), using the same naming scheme, after the class. (10%)